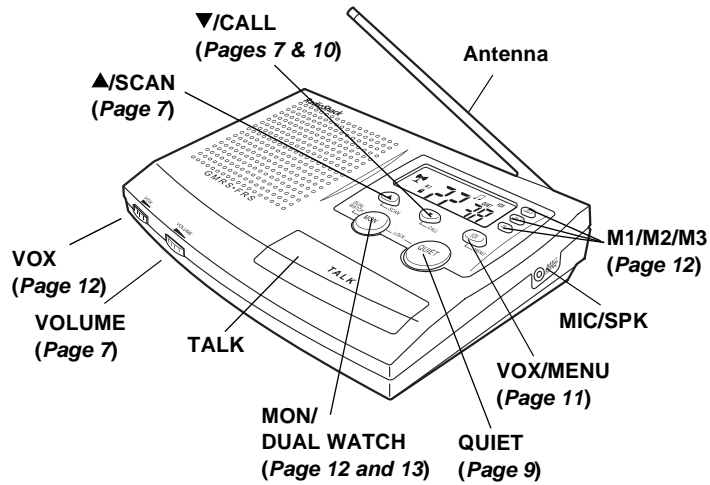




22ch GMRS/FRS Base Station

OWNER'S MANUAL —
Please read before using this equipment.

21-1846



! IMPORTANT !

If an icon appears at the end of a paragraph, go to the box on that page with the corresponding icon for pertinent information.

! — Important □ — Note

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FEATURES

Thank you for purchasing the RadioShack 22ch GMRS/FRS Base Station. Your radio is a new two-way, short-range voice radio service that lets families and groups keep in touch with each other on specific reserved channels. You can place it on a desktop surface or mount it on a wall in your home or office.

Your radio has 22 channels and 38 different quiet codes, which you can use to talk with another person who has a General Mobile Radio Service (GMRS) or Family Radio Service (FRS) radio set to the same frequency as your radio. **!**

Your radio has auto-squelch, so you will not hear anything on a channel unless someone is transmitting nearby on the same channel. You can turn off auto-squelch by pressing down **MON** to hear weaker, distant transmissions.

! IMPORTANT !

A license is not required to transmit on Channels 8–14. However, to transmit on the other 15 channels, you must obtain a license from the FCC. A small fee is required.

Its other features include:

Up /Down Channel — lets you easily select a channel with the press of button.

PLL (Phase-Lock Loop) Controlled Circuitry — provides accurate and stable channel selection.

Quiet Codes (Continuous Tone Control Squelch System) — helps reduce interference from other systems in the area operating on the same frequency.

Built-in Modulation Limiter Circuit — automatically adjusts for a wide variety of voice levels to ensure an understandable transmission.

Combined Mic/Speaker Jack — lets you connect an optional microphone/speaker to the radio.

Monitor Function — lets you hear everything on a channel, even weak transmissions.

The FCC Wants You to Know

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the *FCC Rules*.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,

(Continued)

(Continued) which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your local RadioShack store or an experienced radio/TV technician for help.
- If you cannot eliminate the interference, the FCC requires that you stop using your radio.

(Continued)

PREPARATION

SELECTING A LOCATION

Select a location for the base station that is:



- Near an AC outlet
- Out of the way of normal activities
- Not likely to get wet
- Away from electrical machinery, electrical appliances, and metal walls or filing cabinets
- Away from wireless intercoms, alarms, and room monitors

The location of the base station affects its range. If you have a choice of several locations, test each to see which provides the best performance.

USING AC POWER

Power the radio using the supplied 6V, 500 mA AC adapter.

Your radio is UL listed to ETL standards and meets all applicable FCC requirements.

WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.		
	CAUTION RISK OF ELECTRIC SHOCK. DO NOT OPEN.	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.		



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

Cautions:



You must use a Class 2 power source that supplies 6V DC and delivers at least 500 mA. Its center tip must be set to positive and its plug must fit the radio's **DC 6V 500 mA** jack. The supplied adapter meets these specifications. Using an adapter that does not meet these specifications could damage the radio or the adapter.

(Continued) Changes or modifications not expressly approved by RadioShack may cause interference and void the user's authority to operate the equipment. Your radio might cause TV or radio interference even when it is operating properly. To determine whether your radio is causing the interference, turn off your radio. If the interference goes away, your radio is causing it. Try to eliminate the interference by:

- moving your radio away from the receiver
- connecting your radio to an outlet that is on a different electrical circuit from the receiver
- contacting your local RadioShack store for help

(Continued)

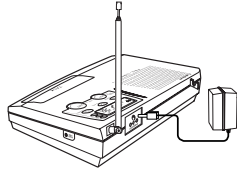
(Continued) If you cannot eliminate the interference, the FCC requires that you stop using your radio.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE

To mount the radio on a wall, you need two screws (not supplied, available at your local RadioShack store) with heads that fit the keyhole slots on the bottom of the radio.

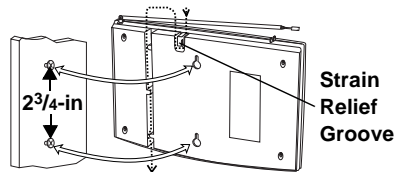
1. Insert the supplied adapter's barrel plug into the **DC 6V 500mA** jack on the back of the radio.



2. Route the adapter cord into the groove on the back of the radio.
3. Plug the adapter into a standard AC outlet.
4. Raise the antenna to a vertical position.

MOUNTING ON A WALL

1. Drill two holes $2\frac{3}{4}$ -inches apart. Then thread a screw into each hole, letting the screw heads extend about $\frac{1}{8}$ -inch from the wall.



2. Insert the supplied adapter's barrel plug into the **DC 6V 500mA** jack on the back of the radio.
3. Route the adapter's cord into the strain relief groove on the back of the radio, then plug the adapter into a standard AC outlet.
4. Place the radio's two keyhole slots over the screws and slide the unit down to secure it.
5. Raise the antenna to a vertical position.

OPERATION

Rotate **VOLUME** to turn on/off the radio and to adjust the volume.

SELECTING A CHANNEL

To manually select a channel, press **▲/SCAN** or **▼/CALL**. The selected channel number appears. See "Transmit Frequencies and Power" on Page 8.


To scan through the channels, hold down **▲/SCAN** until **SCAN** appears. The radio automatically scans through the channels and pauses on each active channel. **BUSY** appears when a call is being received. Press any button except **▲/SCAN** or **▼/CALL** to stop scanning.

Transmit Frequencies and Power

21-1846 Channel	Transmit Frequency (MHZ)	Transmit Power (Watts)	Description
1	462.5625	0.6	FRS 1/GMRS Interstitial 1
2	462.5875	0.6	FRS 2/GMRS Interstitial 2
3	462.6125	0.6	FRS 3/GMRS Interstitial 3
4	462.6375	0.6	FRS 4/GMRS Interstitial 4
5	462.6625	0.6	FRS 5/GMRS Interstitial 5
6	462.6875	0.6	FRS 6/GMRS Interstitial 6
7	462.7125	0.6	FRS 7/GMRS Interstitial 7
8	467.5625	0.5	FRS 8
9	467.5875	0.5	FRS 9
10	467.6125	0.5	FRS 10
11	467.6375	0.5	FRS 11
12	467.6625	0.5	FRS 12
13	467.6875	0.5	FRS 13
14	467.7125	0.5	FRS 14
15	462.5500	0.6	GMRS Primary 1
16	462.5750	0.6	GMRS Primary 2
17	462.6000	0.6	GMRS Primary 3
18	462.6250	0.6	GMRS Primary 4
19	462.6500	0.6	GMRS Primary 5
20	462.6750	0.6	GMRS Primary 6
21	462.7000	0.6	GMRS Primary 7
22	462.7250	0.6	GMRS Primary 8

USING QUIET CODES

Quiet Codes let you talk and listen to other radios set to the same channel and CTCSS (quiet code). This is similar to having a sub-channel within a channel, giving you greater communication flexibility. When you set a quiet code (there are 38 codes to choose from) and turn on this feature, you can communicate with any user who has a radio set to the same channel and quiet code.

1. Hold down **QUIET** until the quiet code flashes.
2. Repeatedly press **▲/SCAN** or **▼/CALL** until you see the desired quiet code. (See “Quiet Codes” on Page 10 for a complete list of quiet codes.) 
3. Press **QUIET** to store the quiet code.
4. To turn off the quiet code feature, press **QUIET**. The quiet code disappears.

NOTE

- To quickly find a quiet code, hold down **▼/CALL** until the desired quiet code appears, then release **▼/CALL**.
- We recommend that you select a quiet code from the range 7–30. If you select a code below or above that range, you must wait 1 to 2 seconds after holding down **TALK** before you start talking.

Quiet Codes

01=67.0	11=97.4	21=136.5	31=192.8
02=71.9	12=100.0	22=141.3	32=203.5
03=74.4	13=103.5	23=146.2	33=210.7
04=77.0	14=107.2	24=151.4	34=218.1
05=79.7	15=110.9	25=156.7	35=225.7
06=82.5	16=114.8	26=162.2	36=233.6
07=85.4	17=118.8	27=167.9	37=241.8
08=88.5	18=123.0	28=173.8	38=250.3
09=91.5	19=127.3	29=179.9	
10=94.8	20=131.8	30=186.2	

USING TALK

To transmit through the radio, hold down **TALK** and speak in a normal voice. **T** appears. When you finish speaking, release **TALK**.



USING CALL

Hold down **CALL** to send a page to other GMRS/FRS radios set to the same channel (and quiet code, if you selected one). **T** appears and a ringing tone sounds.

Using Quiet Code Scan

1. Hold down **QUIET** until the quiet code flashes. Then hold down **▲/SCAN** until **SCAN** appears. When the radio receives a signal from a radio with the same quiet code, the radio stops scanning. Scanning resumes after the signal disappears.
2. Press any key to stop scanning.

USING KEY LOCK

You can also lock **▲/SCAN**, **▼/CALL**, **VOX/MENU**, or **M1**, **M2**, and **M3**. To lock or unlock these keys, hold down **MON/DUAL WATCH** and press **QUIET**.  appears when the keys are locked. 

USING VOX

VOX allows you to transmit hands-free when using the radio. To activate VOX, press **VOX/MENU**. **VOX** appears. The radio automatically transmits when you speak and is set to receive when you are not speaking. To turn off VOX, press **VOX/MENU** again.

NOTE

When the keys are locked, you can call other GMRS/FRS radios set to the same frequency by holding down **CALL**. You can still send a page to other GMRS/FRS radios set to the same frequency by holding down **TALK**.

Setting VOX Sensitivity

To adjust the radio's sensitivity, rotate **VOX** clockwise for quiet conditions or counterclockwise if you are in a noisy environment.

USING SKIP

When the radio is set to scan all the channels automatically, you can skip unnecessary channels. Follow these steps to skip channels:

1. Hold down **MON/DUAL WATCH** and press **▲/SCAN** on the selected channels until **ⓧ** appears.
2. To cancel this function, hold down **MON** and press **▲/SCAN** on the selected channels. **ⓧ** disappears.

STORING A CHANNEL IN MEMORY

You can store channels in **M1**, **M2**, or **M3**. To store a channel, repeatedly press **▲/SCAN** or **▼/CALL** until the channel you wish to store appears. Then press and hold **M1**, **M2**, or **M3** to store the channel into memory. **m1**, **m2**, or **m3** appears.


USING DUAL WATCH

You can set your radio to monitor both the current channel and one of the channels stored in **M1**, **M2**, or **M3**. To use dual watch, hold down **MON** and press **M1**, **M2**, or **M3**. **DUAL** appears and the two channels appear alternately. The radio alternately checks the two channels and stops on the active channel until the signal disappears. Press any key to stop dual watch.

USING THE COURTESY TONE

You can set your radio so the person with whom you are communicating will hear a tone when you finish transmitting. To turn on the radio's courtesy tone, hold down **VOX/MENU** for about 2 seconds, then release. **C-Tone** flashes. **ON** appears when the courtesy tone is on and **OFF** appears when the courtesy tone is off. Press **▲/SCAN** or **▼/CALL** to turn the courtesy tone on or off, then press **VOX/MENU** to store the setting. The radio will automatically store the displayed setting after 30 seconds.

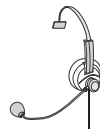
USING THE KEY TONE


You can set the radio so it sounds a tone when you press any key except **TALK**. To turn on the key tone, hold down **VOX/MENU** for about 2 seconds to enter menu mode. Then press **VOX/MENU** again until  flashes. **ON** appears when the key tone is on and **OFF** appears when it is off. Press **▲/SCAN** or **▼/CALL** to turn the key tone on or off. Then press **VOX/MENU** to store the setting or the radio stores the setting after 30 seconds.

USING THE BACKLIGHT

Your radio's display has a backlight that turns on for about 15 seconds when you press any key except **TALK**.

USING A HEADSET



You can make or answer calls with handsfree convenience using an optional headset with a $\frac{3}{32}$ -inch plug (not supplied, available at your local RadioShack store). 

NOTE

Do not change your headset's mode (VOX or PTT (Push to Talk)) while the radio is in use. Be sure to switch your radio off to reset it before switching between VOX and PTT.

To connect a headset, insert the headset's plug into the **MIC/SPK** jack on the right side of the radio.

CARE

- Keep the radio dry; if it gets wet, wipe it dry immediately.
- Use and store the radio only in normal temperature environments.
- Handle the radio carefully; do not drop it.
- Keep the radio away from dust and dirt, and wipe it with a damp cloth occasionally to keep it looking new.

SERVICE AND REPAIR

If your radio is not performing as it should, take it to your local RadioShack store for assistance. Modifying or tampering with the radio's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it.

Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. *(Continued)*

SPECIFICATIONS

RF Output Power	500/600 mW EPR @ 6V AC-DC
RX Frequency	462.5500–467.7125 MHz
Channels	22
Modulation type	FM
Antenna impedance	50 Ohm
Microphone	condenser type
Sensitivity at 12dB Sinad	0.5 μ V
Adjacent Channel Rejection	45dB
Audio Squelch	Auto
Audio output power	200mW @ 8 Ohms
Audio Distortion	5%
Operation Temperature	–4–122° F
Harmonic Emissions	more than 50dB
Dimensions (HWD)	1.42 × 7.01 × 4.65 in
Weight (without AC adapter)	10.9 oz

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

(Continued) In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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21-1846
11A02
Printed in Hong Kong